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AWD first belonged to VVB Pharma, under the State Secretariat for Chemistry. In April 1953, it was transferred, along with most of the enterprises under VVB Pharma, to Hauptverwaltung Pharmazie, under the Ministry for Health. AWD now has a total crew of between 1,200 and 1,300.

2. The administrative staff of AWD includes the following persons:

   a. _____ Engineer Alfred Kraft (SED), a former Machine Construction Mechanic - Plant Director.

   b. Dr. Heinz Falta (no party affiliation), a chemist - Technical Director.

   c. Raab (fnu) (no party affiliation), a former laboratory worker - Production Chief.

   d. Holfeld (fnu) (SED) - Commercial Director.

   e. Nolte (fnu) (SED) - Cultural Director.

   f. Dr. Robert Thren (no party affiliation) - Scientific Director (Wissenschaftlicher Leiter).

3. AWD is divided into so-called Plant Divisions (Werksabschnitte). They are:

   a. Plant "B", which is the former Madaus und Co. at Gartenstrasse 19/21 in Dresden-Radebeul. The following departments are located in this building:

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(1) The Plant Administration.

(2) The Ampule Station (Ampullenstation), where most of the ampules are filled.

(3) The Penicillin Department.

(4) The Xanthocillin Department.

(5) A part of the Tinctures Department.

(6) A research laboratory in which research on ergot alcaloids (Mutterkornalkaloide) is carried out.

b. Plant "C", which is the former Gehe und Co. firm at Leipzigerstrasse 7/9, Dresden. This division contains:

(1) The Tablets Department, where tablets are made and wrapped ~~(Confection).~~

(2) The Tinctures and Extracts Department.

(3) The Drugs Stores and the Drug Mill, where drugs are cut and powdered.

c. Plant "D", which is the former Cuypers und Stalling firm at Grossenhainerstrasse in Dresden. This is the division for organic preparations. The following organic preparations are produced and research on them is carried out:

(1) Cattle hoof oil (Rinderklauenoel - prepared from a gland located in the joints of cattle).

(2) HVL and HHL hypophysene preparatio[redacted]

(3) Pancreas ferment preparations

(4) ACTH (Adrenocorticotropeshypophysene Hormone).

(5) Cortisone (in development, not production).

(6) Thrombin preparations on gelatin sponges for total resorption in wound openings.1/

4. In addition to the above-mentioned divisions, the following special departments are attached to AWD:

a. T[redacted] at Birkenstrasse in Dresden. The factory mainly produces [redacted]ine, morphine, and codein.

b. The Biological Institute of AWD at Stalinstrasse 171; formerly belonged to Madaus und Co. This institute is subdivided into the following three departments:

(1) Micro-biology - headed by Eva Borowski.

(2) Pharmacology - headed by Dr. Fritz Neumann.

(3) Chemistry - headed by Dr. Walter Siebeck.2/

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Attached to the Biological Institute are a Fermentation Department, where citric acid and glucon acid are produced microbiologically, a submersion test installation (Submerse Versuchsanlage), where penicillin cultures are produced, and an animal stable.

5. On the average, AWD (including all three works) has a total sale of between 1.0 and 1.5 million DM East per month. The average monthly production of injection penicillin and depot penicillin3/ amounts to about 2,000 million international units. In addition, the plant produces an unspecified amount of penicillin tablets for oral use.

6. During the third and fourth quarters of 1952, AWD delivered the following products to a Russian Medical Unit (Sanitaetspark) in Fuerstenwalde:

S.E.E. (Scopolamin-Encodal-Ephetonin) - about 1.5 million ampules per quarter (one cubic centimeter each).

Morphine hydro-cloricum - same amount as above.

Calcium gluconicum - same amount as above.

Dextrose 25 percent - same amount as above.

Breakable iodine ampules - same amount as above.

Sulfa-pyridin - about one million tablets per quarter.

Calcex, a molecular combination of hexamethylentetramine and calcium chloride used against the so-called Russian grippe - about one million tablets per quarter.

Sulfathiazol - about one million tablets per quarter.

Acidun phenylethylbarbituricum 0.1 - about one million tablets per quarter.

Dihydrocodein - about one million tablets per quarter.

Digitoxin - about one million tablets per quarter.

7. The following are the main lines of research carried out in AWD under the over-all supervision of Dr. Robert Thren:

a. Xanthocillin research is conducted in the Xanthocillin Department of Plant "B" by Dr. Werner Rothe, who discovered Xanthocillin in 1950 and has been engaged in its development since. Xanthocillin is a product similar to penicillin and is produced from penicillium species. However, whereas penicillin comes from the nutrient soil (Naehrboden) of the penicillium culture, where it is deposited through metabolism, the active substance of Xanthocillin in contained in the cells of the mycelium itself. In order to produce Xanthocillin, the mycelium is dried and the raw Xanthocillin material is extracted from it with petrol ether. The solution is distilled; the residue is raw Xanthocillin. Xanthocillin is a yellow pigment which is either entirely insoluble or only slightly soluble in most of the common organic solvents, such as methyl alcohol, ethyl alcohol, chloroform and benzol; it is therefore precipitable in these liquids. The sodium salt of Xanthocillin,

however, is easily soluble. The advantage of Xanthocillin over penicillin is that its application range (Spectrum) is much wider than that of penicillin. It can be applied in powder form against tuberculosis of the skin and bones. Furthermore, it can be taken orally in the form of tablets and, in contrast to penicillin, will not be rendered ineffective by the contents of the stomach; therefore, it can be applied against enterococci, coli bacteria, etc. So far, Xanthocillin has not been applied in intravenous and intramuscular injections, but experiments are now underway to find an adequate solvent for it with the view of applying it intravenously and intra-muscularly. The exact chemical constitution of Xanthocillin is not known. It is known that it contains phenolic OH groups and that it does not contain free amino groups. Its melting point is around 186° Centigrade. Production of Xanthocillin started three months ago. At present between three and five kilograms are produced per month.

b. Research on ergo[redacted] been carried out in the research laboratory of Pl[redacted] the Biological Institute of the plant. This res[redacted] is headed by Dr. Walter Siebeck, while Dr. Alfred Stein is in charge of ergot production. In 1952 and 1953 large scale experiments involving field infections by vaccination were c[redacted]952, verdant rye on a surface of between 1.5 and 2.[redacted]cted with ergot suspension (Mutterkorn-konidi[redacted]h the aid of a needle brush and a rubber [redacted] saturated with the suspension. The area was subdivided into small parcels of two to three square meters, each of which was treated with different fertilizers, had different kinds of grain, different vaccination dates and different vaccines. The results of these vaccinations were determined in 2,000 to 3,000 analyses, whereby both the micro method according to Bekesy and the macro method according to Hampshire-Page were [redacted] were found which contained up [redacted]one percent ergo[redacted]se soluble in water and those whi[redacted]ssolve i[redacted]tock was fo[redacted] the ergo[redacted]uble in water made up 80 per[redacted] In the B[redacted]itute, hydrogenation of pure e[redacted] recently begun. D[redacted]developed a [redacted] the extraction of er[redacted]but removing oil from the ergots, which on the average[redacted]t oily substances. This was [redacted] the use of adequate solvents, such as mixtures of [redacted]r. In this way it was possible to extract the [redacted]g at the [redacted] [redacted]t be[redacted] [redacted]at, [redacted]ules of one c[redacted]entimeter [redacted]0.5 milligrams ne weight. This drug will be produced on a larger scale in the near future. I[redacted]roduce 10,000 ampules per month.

c. Research [redacted]en carried out in the research laboratory of Plant "[redacted]

(1) M[redacted]

(2) Solanaceo[redacted]tschattenalkaloide)

Development of the following mor[redacted]leted: dihydrocodein, of which two kilo[redacted]duced, and dihydrocodeinon, which is not yet in the production stage. In addition, research is in progress on dihydrooxycodeinon, apomorphine, and dihydromorphinon. The last three opiates are not yet in production.

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This research is being carried out [redacted] of Dr. Alfred Stein. Research on solana[redacted]ied out under the supervision of Dr. Walt[redacted]llowing lines:

(1) Racenization (for instance, conversion of hyoscyamine into atropine).

(2) Preparation of atropinmethylnitrate (eumydrin)

(3) Production of scopolamine from datu[redacted]so produc tion from scopolamine of scopolamine[redacted]ide (spasmolyticum).

Dr. Siebeck developed a new method of using water to extract scopolamine from datura-metel leaves, whereby chlorophyllin, which is not soluble in water, is not extracted together with scopolamine.

d. Research on glycosides is carried out in the research laboratory of Plant "B" by Dr. Walter Siebeck:

(1) Digitoxin, not yet in production.4/

(2) Gitoxin, not yet in production.

(3) Lanatosides A,B,C, not yet in production.

(4) Scillaglycosides (Scillaren A, Scillirosid), not yet in production.

(5) Glycosides from adonis vernalis, not yet in production.

(6) Convallatoxin from Lily of the valley, not yet in production.

(7) Panlanat, first developed by AWD. It is the pure tannoide of the Lanatosides, a biological base matter for the production of Lanatosides. It is now produced at the rate of 30,000 packages of 30 tablets each per month. Each tablet contains 0.1 milligrams of glycosides.

1/ [redacted] Comment. It was planned to affiliate with AWD a small enterprise for the production of tinctures and extracts located in Helffenberg near Dresden; this plant was to be designated Plant "A". However, the plan has been abandoned. 25X1

2/ [redacted] 25X1

3/ [redacted] Comment. The solvent is an oily suspension.

4/ [redacted] Comment. Digitoxin delivered to the Russians in 1952, as mentioned in paragraph 6, was not produced at AWD but was imported from the Merck firm in Darmstadt.